ISSN 1059-1249

Volume 34 No. 1

the magic lantern Gazette

collecting... projecting... and sharing

What is it?

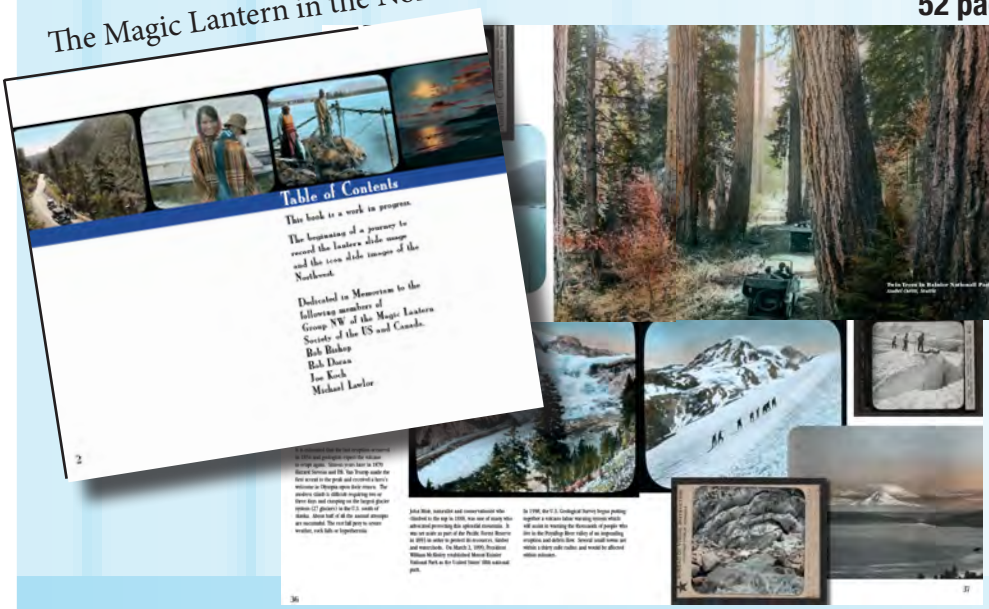
See article on page 25

The Magic Lantern Society of the United States and Canada

www.magiclanternsociety.org

Two Different Books Available

The Magic Lantern in the Northwest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This book is a work in progress.
The beginning of a journey to record the lantern slide usage and the icon slide images of the Northwest.
Dedicated in Memoriam to the following members of Group NW of the Magic Lantern Society of the US and Canada.
Bob Bishop
Bob Duran
Jim Kirk
Michael Lawler

52 pages

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When lanterns were used in NW
Asahel Curtis creator of lantern slides
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Others Created Magic Lantern slides
Those that used slides to tell stories
Slides that show the Northwest
Others were told about the Northwest with slides and readings
Manufacturers and producers of lantern material
Founders of the society
The Last Magic Lantern Show
Contributors

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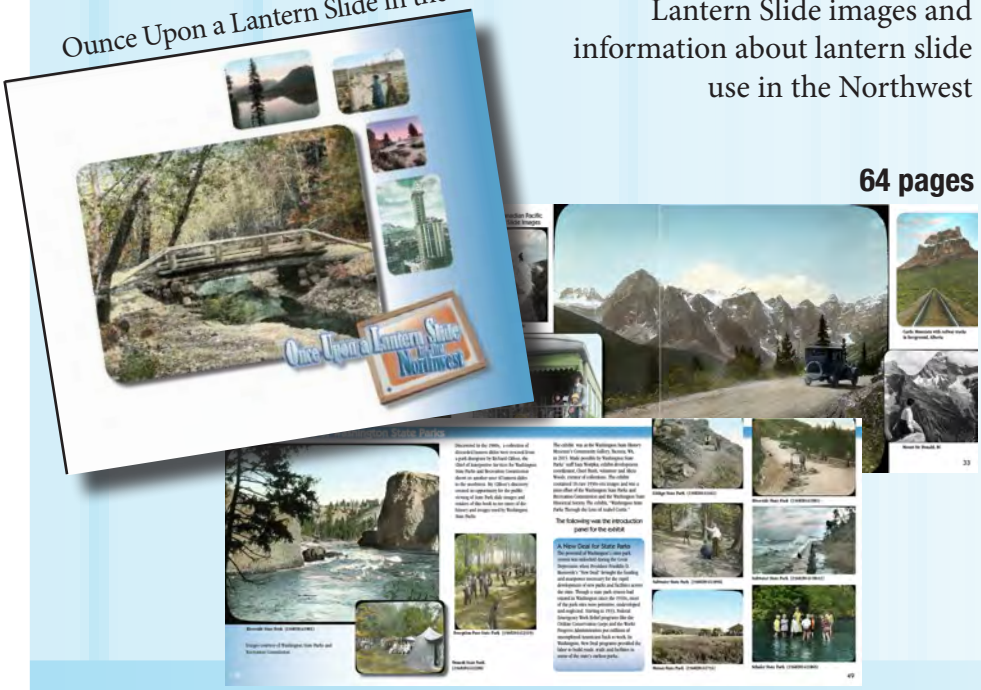
Ounce Upon a Lantern Slide in the Northwest



Lantern Slide images and information about lantern slide use in the Northwest

64 pages

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Lantern Slides Document Story in 1911
Slides from 1930
Northwest Pioneer Used Lantern Slides
Slides for Telling Stories
Slides in Walla Walla
Canadian Pacific Railroad Slide Use
Slides of Sedro-Wooley
Slides of the Dream Theatre Sedro-Woolley
Advertising Slides
Coming Attraction Slides
Local Sedro-Woolly Artist Created Slide Art
Slide Art Created by Richard Odlin
Sedro-Woolley Moral Presentation
Photographer that Created Moral Slide Show
Slide Images of Washington State Parks
Advertising Slides Promote Kent Business
Lantern Slide Users of Today
Knights of Pythias
Slide Images Display Northwest History
Founders of the Society
Contributors

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Books from Conventions 2010 and 2018

Both books are 9.5" x 8"

Limited Quantity Available

Price:

1 Book $10 + shipping of $7.25

2 Books $20 + shipping of $7.25

Contact Larry at: designerlc@comcast.net Payment to Ron Easterday-Treasurer, Magic Lantern Society, upon payment books will be shipped.

Editorial

As the hysteria and infections hopefully abate, it is wonderful to see the next Convention taking shape! It is exciting to read the list of presentation proposals as well as all the 'extras' Larry Rakow is considering. Cleveland has much to offer and meeting old (and new) friends is a great attraction too. It will certainly be a wonderful mix of scholarship and showmanship, as we have become accustomed to - and more besides!

The Advertising Industry has never been slow at seizing opportunities to expand into - and cinemas were no exception - not just on the big screen by way of lantern slides in the interval between films but also in the foyer and it would appear even on the clock, as we can see from the article on the Publicity Clock Company. Bored with the film? Anxious to catch the last transport home? "Watch the clock on the wall, my darling, as the advertisements go by" (with apologies to R Kipling!).

Illumination is an essential part of the projectionist's considerations and lighting has evolved rapidly in recent years. Ron Easterday has done a fascinating comparison between the performance abilities of the oil lamp, the quartz halogen and the LED projection lamps, from which results we can all benefit. *(For many years we used 150 Watt 12 volt bare quartz halogen lamps (without reflectors) in our lantern and found them quite adequate for screens up to twenty feet across - Ed).*

Adding to the previous lens article, Matt Schnittker illustrates the results of an incorrectly assembled objective lens on evenness of focus. If anyone has an issue with this it is well worth considering.

Terry's Tips continue to be a splendid resource - having taken us through the practicalities of producing suitable images on the screen he is now helping us to construct performances, on this occasion how to produce a suitable script. For those of us who are not natural performers this is of great benefit!

By the way, if you have questions or observations about any of the content in the Magic Lantern Gazette please feel free to contact the Editors - we should love to have a page where you can give or receive advice, swap tips or simply express an opinion!

Talking of resources, the Magic Lantern Calendar has details of a wonderful variety of magic lantern related events and exhibits as well as many web sites of interest.

Our thanks go to Brian Rogers for regularly compiling this feature and to all our contributors in this issue.

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President's Message

Magic Lantern Society President's Letter

It's been four years since the society last gathered in convention – we can't wait to see you this fall! Join us at the Glidden House in Cleveland, Ohio, from October 18-20, 2022 for the 2022 Convention of the Magic Lantern Society of the United States and Canada: ***Forty Years: looking Back and Looking Forward.***

We continue to add presentations and performances to the schedule. At presstime, here is the list of presenters and their programs:

Beth Ayers: Love is in the Air (with hammered dulcimer)

Janelle Blankenship: the Monster Magic Lantern; and German Lantern Slides of A. Kruss

Terry Borton: Joseph Boggs Beale; and a Performers Workshop

Ron Easterday: The Rise and Fall of the Buckeye Stereopticon company; the Farmer and His Calf, and a variety of short subjects

Melissa Ferrari: Relict: A Phantasmagoria

Bob & Sue Hall: Racial Profiling 1900, or How Your Parents and Grandparents were Taught to be Racist

Doug Hausknecht: 1930's Disney in England (Ensign)

Julie Mellby: EL Wilson and *The Magic Lantern* magazine (1874)

Edward Murray: Magic Lantern Slides and Current Poetry

Larry Rakow: Temperance and Prohibition

Brian Rogers: Perceptions of the Arctic; and Alaska City Panorama Slides

Matt Schnittker: Wet Plate Photography Demonstration; and Personal Journey: Alchemy and Art

Kim Smeja and team: Magic Lantern Program in Six Acts

Jim Vendeland: Merger of the Kaleidoscope & the Magic Lantern

Gart Westerhout: Illustrated Song Slides About Hats

All interested parties: Arresting Images: the Interesting, Peculiar, Humorous and Weird

The program will begin on the afternoon of Tuesday the 18th and conclude on the evening of Thursday the 20th with an Extravaganza Performance open to the public at the *Cinematique* in Cleveland. See Larry Rakow's letter elsewhere in this *Gazette* for more information about the convention.

Registration information will be available by the end of June, but hotel reservations at the Glidden House are now available – please use the link in Larry's letter.

Come one, come all – we look forward to gathering all to celebrate the past and future of the magic lantern.

Finally, I'm pleased to report that the membership has unanimously approved new Articles of Incorporation and Bylaws for the Society. We'll report on what that means at the convention. Interested in being an officer or board member? Please let me know at briandrogers@gmail.com.

Brian Rogers, Society President

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The Publicity Clock Co., Inc

David Evans embarks on a project – not so much restoration as reproduction!

The Publicity Clock Company, an advertising firm based in the World's Tower Building (Fig 1), 110 (sometimes 105 - see the advertising cards Figs 15 - 18) West 40th Street, New York City from around 1915 to at least 1930, placed advertisements in local movie theaters by means of the Publicity Clock, a device that projected the image of a working clock face with a repeating sequence of advertisements displayed within the dial.

Fig 1: Presumably not the entire building!

The Publicity Clock Co. engaged advertisers, collected fees from them, and supplied the advertising transparencies for the device. Theaters received a portion of the proceeds for projecting the colorful image on the wall near the movie screen.

Throughout the 1920s and perhaps later, the company was run for a number of years by Leslie Neuberger, the brother of Roy R. Neuberger, the founder of Neuberger Berman[1]. The mechanism that intermittently changed the advertisements was patented by John U. Barr on July 20, 1915, patent number 1,146,839 (See page 8). The company was later known for the slogan, "Let Time Tell Your Story." We included a bit about this company in an article in the Gazette Volume 32 No. 1 about the Kei-Lac advertising clock company.

Recently I had the opportunity to purchase on eBay some parts of a Publicity Clock mechanism. There are four mounting plates, one completely blank, one more or less complete, with the clock mechanism, the glass dial and hands, the motor that changes the slide and the wheel with spring clips that hold the slides in position (Figs 2 and 3 - unrestored, as purchased). Another mounting plate has the clock and motor units but is lacking the slide mounting wheel and the fourth just has a few parts attached. I assume that this collection may have been the property of a service agency for the Publicity Clock Co and these are the

Fig 2: Front of the mechanism plate

remains of the workshop junk pile!

I attempted to find out what the complete unit looked like. The original brochure (Figs 4 - 9) describes it as a sheet steel box, a projection lens, a condensing lens

Fig 3: Reverse of the mechanism plate, showing the slide mounting wheel, glass clock dial, condenser unit and projection lens with mount.

and a 100 Watt Mazda lamp with socket and cord. It also gives the dimensions of the complete unit and a line drawing of it. This all sounds quite encouraging, except that the unit described in the brochure is an 8-slide variation, whereas ours has twelve slides! I made the assumption that the optical parts would probably be the same in each version, so the length of the case would remain the same. The width we obtained from the width of the mechanism plate and the height was determined by the position of the optical path – the location of the glass clock dial on the mounting plate was the deciding factor. I located a 3" diameter condenser unit – still too big, but the best I had in the odds box – and a 6" focal length objective lens, also from the odds box and complete with a brass mounting attached to a lens tube from a mid-sized lantern of some sort. I unsoldered the circular cast mounting from its tube, so now need a steel plate for the front of the new box with a four inch diameter hole into which I can solder the lens mounting. I chose to ignore the 100 Watt Mazda lamp and opted for a 50 Watt 50 Volt quartz halogen lamp that I mounted on a sliding rail so that its distance from the condenser could be adjusted. The condenser is also mounted on a similar sliding arrangement so that it too can be adjusted close to the slide mounting wheel. See Figs 13 & 14 for the steel framework and the various parts in position. The back panel has the 50-volt transformer, on/off switch etc mounted on it. I have run it up on a sort of hand-held trial basis and it seems like it should work!

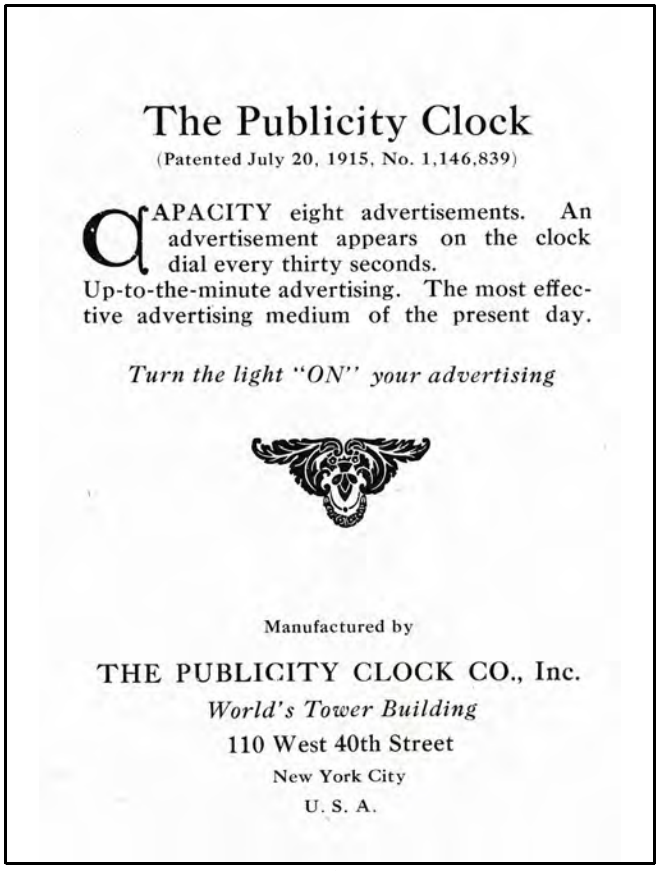
Meanwhile, Larry Cederblom has been hard at work making a set of the advertising images that will clip into the slide mounting wheel (Figs 11 & 12). He has made a splendid job of producing fifteen slides, so that we will be able to change some of the twelve images from time to time.

There is still much to do – including overhauling the clock and the slide drive motor, obtaining steel flat panels to mount on the frame, cleaning all the original mechanism so that it looks good, works and is hygienic!

We will include another bulletin in a future Gazette, but if in the meanwhile you know of the existence of a 12-slide Publicity Clock projector, could you please let me have details, so that I may be able to improve the design of my construction.

Thank you to Ron Easterday for supplying copies of the patent document and the advertising cards.

1. *Neuberger Berman Group LLC is a private, independent, employee-owned investment management firm. The firm manages equities, fixed income, private equity and hedge fund portfolios for global institutional investors, advisors and high-net-worth individuals. It was founded by Roy Neuberger in 1939.*



The Publicity Clock

(Patented July 20, 1915, No. 1,146,839)

CAPACITY eight advertisements. An advertisement appears on the clock dial every thirty seconds.
Up-to-the-minute advertising. The most effective advertising medium of the present day.

Turn the light "ON" your advertising

Manufactured by

THE PUBLICITY CLOCK CO., Inc.

World's Tower Building

110 West 40th Street

New York City

U. S. A.

Fig 4: Brochure page 1

:: THE PUBLICITY CLOCK COMPANY, Inc. ::

The Publicity Clock

THE PUBLICITY CLOCK is an entirely automatic stereopticon which by means of a high power nitrogen incandescent lamp projects the dial and hands of a clock together with automatically changing advertisement to an aluminum screen, usually placed at one side of the regular moving picture theatre screen, the whole projection being in brilliant colors.

The advertisement may be projected to any desired size up to forty-eight inches in diameter. The general effect is as though one were looking at a beautiful illuminated clock face.

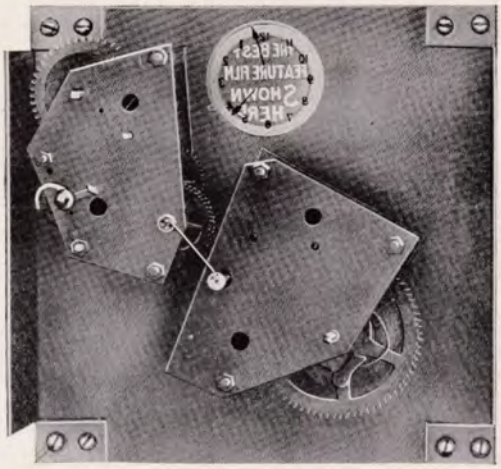
At intervals of thirty seconds there appears, in the center of the clock dial, eight successive advertisements. These changes are made automatically by the clock movement so that each advertisement is shown on the screen every thirty seconds, and repeats every four minutes.

The mechanism operates noiselessly. The change in the ads is made in such way that the audience is not in the least disturbed nor is their attention in any way distracted from the picture on the screen.

World's Tower Building New York City

Figs 5 & 6: Brochure pages 2 & 3

:: THE PUBLICITY CLOCK COMPANY, Inc. ::



AUTOMATIC CLOCK MOVEMENT

Simplicity is the keynote of the construction of the Publicity Clock.

There is no complicated electrical apparatus; there is no electric motor—nothing but an ordinary, high-grade clock mechanism, which can be taken apart, cleaned, repaired and reassembled by the clockmaker in even the smallest village.

World's Tower Building New York City

Figs 7 & 8: Brochure pages 4 & 5

World's Tower Building New York City

THE BEST ADVERTISING MEDIUM OF THE PRESENT DAY
PUBLICITY CLOCK CO. 10 W. 46 ST. NEW YORK
A NEW AD. EVERY 30 SEC.
THE BEST FEATURE FILM SHOWN HERE

AUTOMATIC SLIDE CARRIER

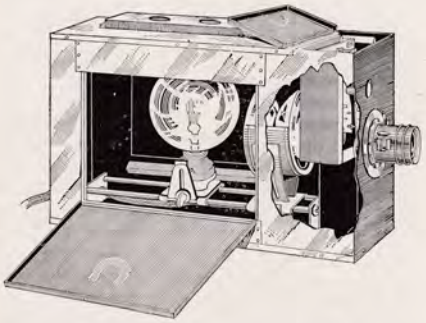
The Slide Carrier holds 8 advertising slides which are supplied by this Company.

These slides may easily be taken out or inserted into the holder and each slide may be replaced without disturbing the other slides.

The following illustrations give one a very clear idea of the manner of operation; also of the general appearance of the mechanism of the machine as well as the projector in its entirety.

:: THE PUBLICITY CLOCK COMPANY, Inc. ::

:: THE PUBLICITY CLOCK COMPANY, Inc. ::



A Good Investment

THE PUBLICITY CLOCK installed in your theatre will not only bring you excellent financial returns, but will please your audience because they will constantly have before them the correct time; more than this it will accommodate your local merchants who will be enabled to place before your audience an advertisement of their goods in the very best possible form.

It will eliminate the necessity of showing advertising slides on the picture screen, which is always a source of more or less dissatisfaction to your patrons.

World's Tower Building New York City

World's Tower Building New York City

Dimensions

The Publicity Clock weighs approximately 10 pounds. Assembled ready for business it is 12 inches high, 7 1-8 wide and 20 inches long.

It consists of a Sheet Steel Box, a projection lens, a condensing lens, a 100 watt mazda lamp with socket and cord, which may be placed either on direct or alternating current.

The clock movement itself is 3 inches thick, 7 inches long, and 7 inches wide.

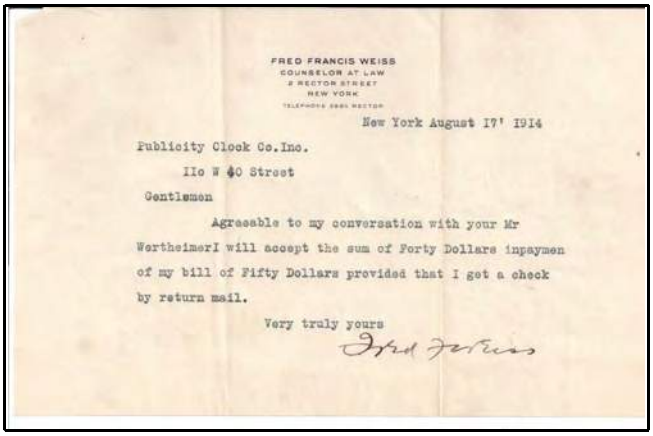
The clock face may be projected to any desired size, from 24 inches to 6 feet in diameter.

Further information concerning details, prices, etc., may be had by addressing

THE PUBLICITY CLOCK CO., Inc.
World's Tower Building
110 West 40th Street
New York City
U. S. A.

:: THE PUBLICITY CLOCK COMPANY, Inc. ::

Fig 9: Brochure page 6



FRED FRANCIS WEISS
COUNSELOR AT LAW
2 RECTOR STREET
NEW YORK

New York August 17' 1914

Publicity Clock Co.Inc.
11o W 40 Street

Gentlemen

Agreeable to my conversation with your Mr Wertheimer I will accept the sum of Forty Dollars inpaymen of my bill of Fifty Dollars provided that I get a check by return mail.

Very truly yours
Fred Weiss

Fig 10: Letter dated August 17th 1914 from Fred Francis Weiss, Counselor at Law, to Mr Wertheimer of Publicity Clock Co, perhaps regarding the setting up of the company? Fred Weiss was one of the signatories to the diagram of the patent application.

Fig 11: A selection of Larry's images

Fig 12: One of Larry's slides for the Projection Clock, printed on shaped Acrylic sheet

Fig 13: The new framework with the projection lamp in place and the lamp transformer on the back plate.

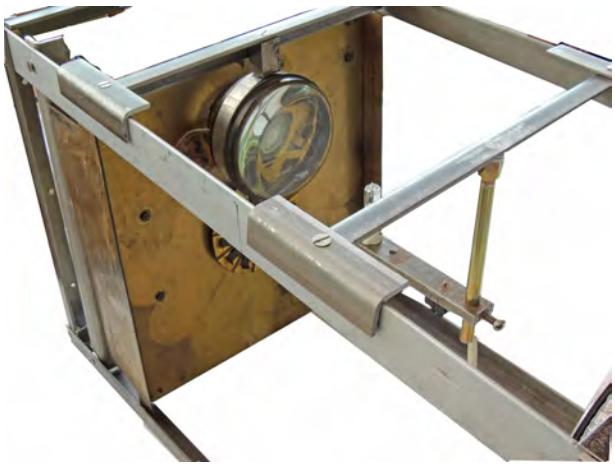
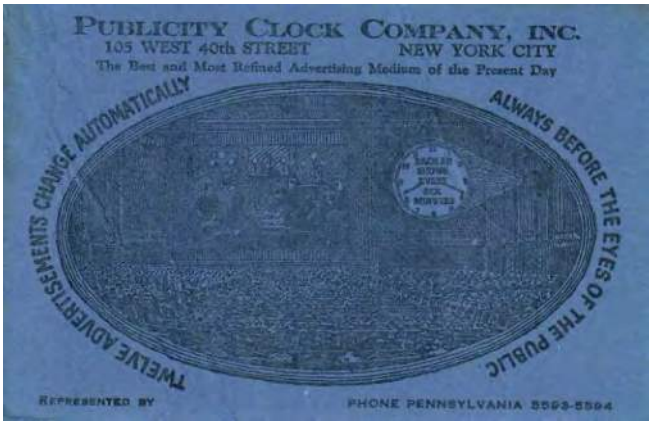


Fig 14: The clock mechanism, condenser unit and projection lamp - these last two can slide along the framework for best results.

PUBLICITY CLOCK COMPANY, INC.
105 WEST 40th STREET NEW YORK CITY
The Best and Most Refined Advertising Medium of the Present Day
EACH AD SHOWS EVERY SIX MINUTES
Twelve Advertisements Change Automatically
PHONE PENN. 5593-5594


PUBLICITY CLOCK COMPANY, INC.
105 WEST 40th STREET NEW YORK CITY
The Best and Most Refined Advertising Medium of the Present Day
TWELVE ADVERTISEMENTS CHANGE AUTOMATICALLY
ALWAYS BEFORE THE EYES OF THE PUBLIC
REPRESENTED BY
PHONE PENNSYLVANIA 5593-5594

PUBLICITY CLOCK COMPANY, INC.
105 WEST 40th STREET NEW YORK CITY
The Best and Most Refined Advertising Medium of the Present Day
TWELVE ADVERTISEMENTS CHANGE AUTOMATICALLY
ALWAYS BEFORE THE EYES OF THE PUBLIC
EACH AD SHOWS EVERY SIX MINUTES
REPRESENTED BY
PHONE PENNSYLVANIA 5593-5594

PUBLICITY CLOCK COMPANY, INC.
105 WEST 40th STREET NEW YORK CITY
The Best and Most Refined Advertising Medium of the Present Day. — Always Before the Eyes of the Public
ADVERTISEMENTS CHANGE AUTOMATICALLY
REPRESENTED BY
PHONE PENNSYLVANIA 5593-5594

Figs 15 - 18 - Advertising cards from the company - all with the 105 West 40th Street address - probably before they moved to 110.

Sticky label sent to Riley's on a carton of 1 Gross #3 grommets - see article on Page 25.

UNITED STATES PATENT OFFICE.

JOHN U. BARR, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO CHARLES ROSE, OF NEW YORK, N. Y.

ADVERTISING DEVICE.

1,146,839. Specification of Letters Patent. Patented July 20, 1915.

Application filed May 11, 1914. Serial No. 837,643.

To all whom it may concern:

Be it known that I, JOHN U. BARR, a citizen of the United States, residing at New York city, in the county and State of New York, have invented certain new and useful Improvements in Advertising Devices, of which the following is a clear, full, and exact description.

This invention relates to improvements in advertising devices, and in its more intense aspect to improvements in the motor mechanism arranged to impart intermittent movement to a changeable exhibitor.

One of the objects of the present invention is to provide a simple and practical mechanism of the above character which will be reliable and efficient in use and operation.

A further object is to provide a mechanism of the above character adapted to intermittently move a changeable exhibitor rapidly and hold the same in its changed position against vibration or rebounding.

Other objects will be in part obvious from the annexed drawings and in part indicated in connection therewith by the following analysis of this invention.

This invention accordingly consists in the features of construction, combination of parts and in the unique relations of the members and in the relative proportioning and disposition thereof, all as more completely outlined herein.

To enable others skilled in the art so fully to comprehend the underlying features thereof that they may embody the same by the numerous modifications in structure and relation contemplated by this invention, drawings depicting a preferred form have been annexed as a part of this disclosure, and in such drawings, like characters of reference denote corresponding parts throughout all the views, in which—

Figure 1 is a rear view of such parts of a changeable exhibitor or advertising device as are necessary to illustrate the present invention; Fig. 2 is a sectional plan view with certain parts of the operating mechanism removed.

In order that a clear perception may be had of the several objects sought to be obtained by the present invention it may be briefly stated that the present device is particularly adapted for use in such devices as are adapted to cast an image or shadow upon the sidewalk or screen of certain advertising or printed matter carried upon the face of a movable transparent member behind which may be positioned a source of light, reflectors and lenses as may be necessary to properly present the advertising matter at the place or point desired. This transparent member is intermittently moved at regular intervals as desired.

As this mechanism is more or less well known to those familiar with the subject it is believed to be unnecessary to show the same in detail, as the present invention resides more particularly in the mechanism for intermittently moving the transparent member, and is fully disclosed in Fig. 1 of the drawings.

In Fig. 1 a suitable support or frame 20 is provided on its rear face with ordinary clockwork movement B, and a spring motor C. The clock work B is adapted to actuate or move an hour hand 21, and a minute hand 22, through the medium of gearing 23 adapted to mesh with suitable gearing 25 carrying the hands of the clock. In front of the hands is placed a transparent disk 27 to which are applied the hour indications from one to twelve, the gearing 25 being suitably protected by an inclosing casing 28.

The advertising matter which is to be cast in shadow form upon the sidewalk or other suitable place is indicated by the character A shown in dotted lines in one of the sections of a relatively large rotatable plate 29. It is of course to be understood that each section of this plate is provided with other advertising matter. The plate is clamped or secured in any desired manner to a central shaft 30 adapted to be intermittently rotated by the motor C in such a manner that each section of the plate 29 is caused to aline with the face or dial 27 of the clock in succession and remain stationary in front of said dial for a predetermined length of time. While the plates are at rest before the dial the advertising matter thereon will appear on the face of the shadow clock and at the end of that time the plate will rotate to present a new section having different printed matter thereon.

Associated with the clock mechanism B is a balance wheel mechanism of the usual character indicated at D, beating the seconds in order to control the operation or movement of the plate 29 across the face of

the dial. A shaft 40 of the balance wheel mechanism carries a disk 41 having a plurality of pins or studs 42, which control the operation of the motor mechanism C. A spring 43 furnishes a source of power for rotating the shaft 30 through intermediate gearing 44, 45, 46 and 47. The intermittent rotation of this shaft 30 is controlled by means of a lever 48 carried by a hub 49 upon a driven shaft 50 of the motor mechanism C. As the lever 48 extends to the disk 41 of the clock mechanism it is held against movement by means of pins 42 with which it engages as long as one of these pins 42 remains in contact with said lever. As soon however as the pin 42 clears the end of the lever the spring 42 of the motor will act to turn the gears and shaft 50 at relatively high speed through a complete revolution. During this rotation of the shaft 50 another pin 42 will have moved into the path of rotation of the lever 48 and arrest the same upon completion of one rotation. The parts are so proportioned and arranged that one rotation of this lever 48 will cause the disk 49 to rotate a sufficient distance to move the next section into operative position. The periods of rest will be of predetermined length of time governed by the number of pins 42, and when four pins are used, as shown herein, these periods of rest will be substantially fifteen seconds, as the disk 41 is adapted to rotate once a minute. In exhibitors of this character the motor mechanism C for rotating the exhibitor has to be properly proportioned to obtain the desired result, and if the motor is too strong for the arm 48, at the end of its rotation and on engagement with one of the pins 42 there will be a tendency to bend the arm or possibly break the intervening mechanism. If a weaker motor is used its strength will hardly be suffiicient to hold the arm 48 against re-bounding which would cause a consequent vibration of the advertising matter presented upon the dial 27. In order to prevent this re-bounding or oscillation there is provided a ratchet 51 and a pawl 52, associated with a shaft 30 which prevents the arm 48 from re-bounding on engaging one of the pins 42. The shaft 50 is also provided with a ratchet 53 and coöperating pawl 54 to prevent actuation of the motor while changing plates 29. A brake mechanism 55 is also provided which can be moved into the path of the rotating arm 48 and when in such position as shown by dotted lines will cause the arm 48 to rest and stop further operation of the motor. This mechanism is particularly desirable when all of the advertising matter is not desired.

It is thus seen that the present invention provides a simple, and practical mechanism adapted to reliably and efficiently control the intermittent operation of a changeable exhibitor in a manner to produce the desired results.

Without further analysis, the foregoing will so fully reveal the gist of this invention that others can by applying current knowledge readily adapt it for various applications without omitting certain features that, from the standpoint of the prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention, and therefore such adaptations should and are intended to be comprehended within the meaning and range of equivalency of the following claims.

I claim as my invention:

1. In a device of the character described, in combination, a main driven shaft adapted to carry a changeable exhibitor, an arm mounted on said shaft, a motor for turning said shaft at relatively high speed to rotate said arm, clock mechanism independently associated therewith, intermittent stop and release mechanism driven thereby and positioned in the path of said arm whereby said arm is momentarily arrested at the end of each revolution, and a pawl and ratchet mechanism associated with said driven shaft adapted to prevent rebounding of said arm and oscillation of said exhibitor as said arm engages said intermittent stop mechanism.

2. In a device of the character described, in combination, a main driven shaft adapted to carry a changeable exhibitor, an arm rotatable with said shaft, a motor for turning said shaft at relatively high speed to rotate said arm, clock mechanism independently associated therewith, intermittent stop and release mechanism driven thereby and positioned in the path of said arm whereby said arm is momentarily arrested at the end of each revolution, a pawl and ratchet mechanism associated with said driven shaft adapted to prevent rebounding of said arm and oscillation of said exhibitor as said arm engages said intermittent stop mechanism, and a brake adapted to be moved into and out of engagement with one of said movable parts to arrest the movement of said main driven shaft at will without affecting the operation of said clock mechanism.

Signed at New York city, New York, this 5th day of May, one thousand nine hundred and fourteen.

JOHN U. BARR.

Witnesses:
MABEL DITTENHOEFER,
ROBERT RICHTER.

J. U. BARR.

ADVERTISING DEVICE.

APPLICATION FILED MAY 11, 1914.

1,146,839

Patented July 20, 1915.

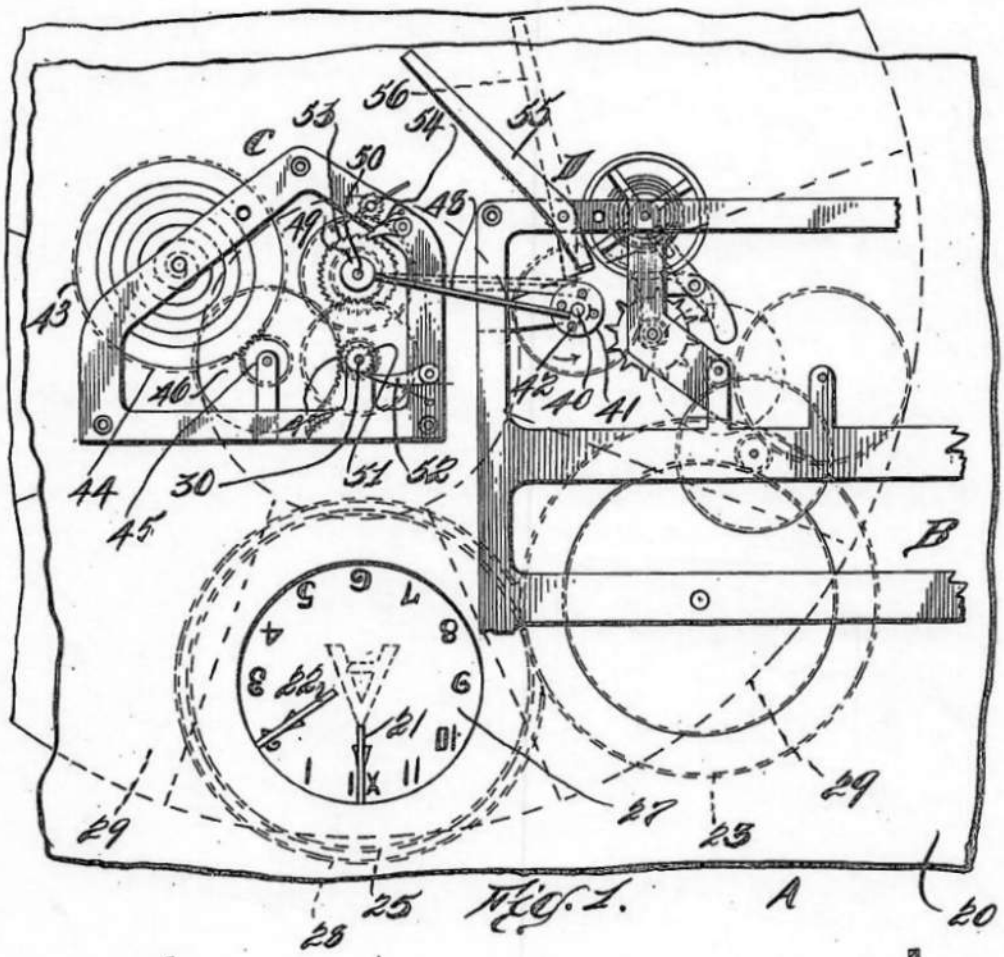


Fig. 1.

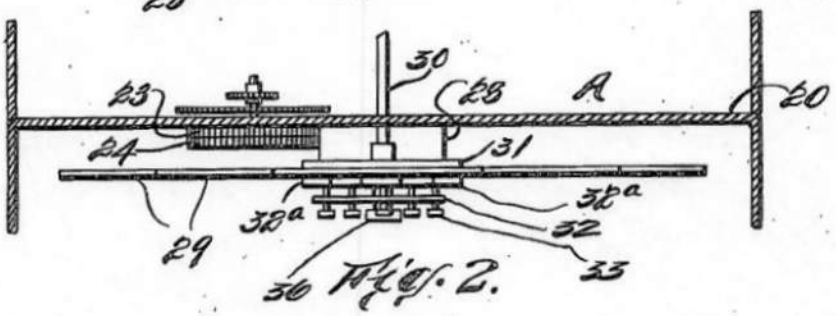


Fig. 2.

Witnesses
E. A. Jarvis
Fred Fischer

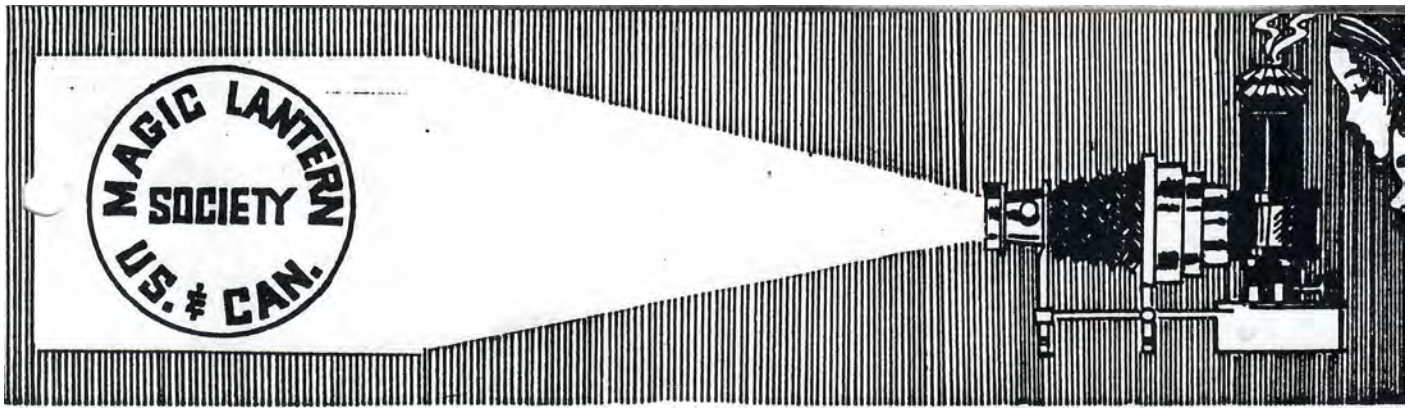
Inventor
John U. Barr
by Warren Wright
attorney.

Addendum to

The Founding of the Magic Lantern Society of the United States and Canada

Published in the MLG Volume 33, No. 3.

By Ron Easterday



1999 Magic Lantern Society of US & Canada Letterhead

Through an odd twist of events, just a few months after wrapping up the article for the Gazette, I came into the possession of Joe Koch's notebook with miscellaneous articles and clippings, but predominantly letters, invitations, and newsletters of Northwest Corner meetings from the early years of the Society starting in June 1978 to 1999.

Following are a few additions/corrections/bits of trivia for those of you who are keeping score -

June 14, 1978 Joe Koch sent out a letter "progress report" regarding the forming of the Society in which he states that he has sent out 125 applications to "persons interested in the Magic Lantern." Joe states the formation of the Society started "26 Jan 1978."

Founding of the Society: In a newsletter dated Fall 1978, authored and signed by *Joe Koch, Chrm.* [sic] Joe states "The official start of the Society will be January 1, 1979" and "The dues you folks have paid are for 1979." Therefore I retract my prior statements and now consider 1979 as the founding year of the Society, the year the first ML Bulletin was published by Leora Wood Wells. The Society in 2022 is now 43 years old.

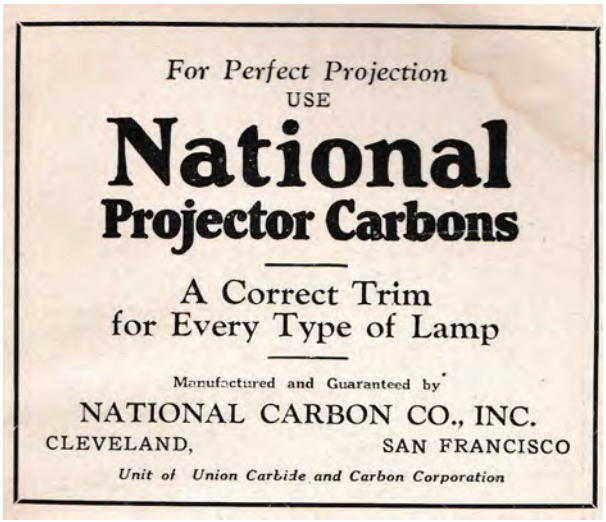
First meeting of the Northwest Corner was held April 13, 1980, at the home of Carmen and Bob Bishop with eight members and nine guests. From then on meetings were held in the Pacific Northwest 3-4 times a year.

Membership:

- February 5. 1979 letter: 27 persons
- August 16, 1980 meeting notes: 59 persons
- January 8, 1996 Presidents letter noted 112 members and Joe noted past memberships of 99 in 1983 and 116 in 1989.

Dues: In November 1980 it was reported annual dues of $ 7.50 to be increased to $ 10.00 in 1980, by 1987 dues were $ 15.00, $ 20 by 1998.

From mid-1986 through 1987 it was reported that the Northwest Corner had no meetings due to various members' illnesses. Not due to a pandemic as in 2020-2021, but interesting how events out of our control impact our lives.



Experiments with Magic Lantern Illuminants

Ron Easterday

Spring 2022

From the first time that I opened the wooden case that held a M.C. Lilley lantern, when I was about 14 years old, what enticed me was the smell – the old kerosene that had permeated into the original Lilley cloth-covered wood box. I still love opening that case today as a tangible element of the past, seemingly still alive. Some years ago I purchased a second M.C. Lilley lantern, but the wood case does not smell the same. Maybe my lantern infatuation is due to an unhappy kerosene spill from long ago?

But from the first awkward attempts at using the lantern as a teenager, I knew the original three-wick kerosene illuminate, as fascinating as it was with the live flames, would not meet the expectations of contemporary audiences. I could barely see the images myself, alone in a totally dark basement.

It was over 30 years and a couple Society conventions later before I attempted my first magic lantern show. I equipped the lantern with a 300-watt halogen projector lamp, slide dimmer switch, small fan, and a costly piece of dichroic UV/heat resistant glass, obtained from a theater supply company, placed between the lamp and the condensing lens. It was based on recommendations from Jack Judson called "The Judson Design" (those of you who remember Jack will smile a little at the name) in his Guidebook, see bibliography. It worked great and the light output allowed me to project in almost any situation, even where there were relatively high ambient light levels.

The Vision

With the development of LED lighting, I often thought of equipping the lantern with an LED light source. The halogen lamp seemed more and more a clumsy solution – fan noise, as quiet as it was, and the need for 110 v power. Running extension cords, subject to accidental or malicious disconnection, searching for receptacles in older museum buildings, remembering to bring grounding adapters for old ungrounded receptacles, discovering old receptacles that did not have any active power - it just was not evoking an 1899 magic lantern show.

I envisioned a low voltage LED lamp, naturally low in UV and heat, with a rechargeable battery pack hidden within the lantern housing. If a battery pack would suffice for 1-2 hours, with a quick-change spare, it would be like the days of old where if you kept the kerosene filled and wicks trimmed, the show could go on indefinitely – and all self-contained.

So from time to time, I started in on the project, always getting lost in details.

How bright a light source would I need?

The original three-wick kerosene illuminate was advertised in the 1899 M.C. Lilley catalog as "We have tested, by means of our bar photometer, the American three-wick lamp with the following result, 128 candle-power" and "as the least complicated and the one producing the most satisfactory results in operation and illumination" and finally "in testing the candle-power of Magic Lantern oil lamps with different quantities of wicks, our three-wick lamp giving a larger candle-power than a five-wick lamp." But how to convert candle-power to units used today? From various sources, candlepower is a point source; lumens are total light output of a lamp. But approximate conversions exist, and 128 candle power x 12.56 lumens per candlepower = 1,608 lumens. A lofty goal which I knew would not be bright enough. But how much of that light, spread over three wicks, made it to the condensing lens?

There seemed, unsurprising, no readily available current sources of light output data for a three-wick kerosene lamp, but other contemporary data sources of conventional kerosene lamps with flat wicks suggested, by extrapolation, perhaps 90-638 lumens output could be expected.

The halogen projector lamp, which I knew produced satisfactory results under a variety of conditions, produced 525 lumens in a focused beam due to its built-in reflector.

But I lost myself in indecision. As John Davidson's Gazette articles "New Lamps for Old" and others aptly noted, all that really matters to the audience is the quantity of light reflected back to them off the screen. This seemed a function of the light source, lantern reflector, lenses, distance, screen reflectance…. John's articles provided some means

for calculation but it seemed too many variables to quantity.

What color light source?

As long as I was going to build a new light source, I wanted to match the color of the original kerosene as best I could. Whether the slides were designed to be shown with a kerosene, incandescent lamp, electric arc, or limelight, if shown with this M.C. Lilly lantern images would appear as colored by a kerosene lamp. I wanted to replicate that time period.

Light color, Correlated Color Temperature (CCT) ,is measured on the Kelvin scale (K). Again, I found little on the light color of a kerosene lamp, but I know it was very yellow, sometimes red, a warm color. I found that a match flame is about 1,700K, candle flame 1,850 K. Incandescent lamps 2,700-3,300 K, with a "warm white" bulb in the lower, 2,700K range. My halogen lamp was cooler, or bluer, at 3,350K, while daylight at noon is up to 5,600K.

Then there is the Color Rendering Index (CRI) often stated with modern lamps, on a scale of 1-100, which indicates how good the light source is at rendering color. The CRI is not the same as the lamp color. Again, I was getting lost in the technical details but it seemed that I should have a light source in the 90-100 CRI range to have good color rendering.

Time Passes and New Inspiration

So years, yes literally years, of indecision went by with no action other than occasional, frustrating research. I blame my father's engineering influence: Until you can calculate it and know the answer, don't waste time building it. I nearly gave up, the halogen fixture that I built had worked fine for many years.

Now I am sure there are other magic lantern enthusiasts out there that have sorted this all out and are by now thinking – why didn't he just ask!? But I preferred to wallow in indecision.

Then came Matt Schnittker's blog "Never Stop Learning" describing his experiments with LED lighting for his magic lantern and subsequent Gazette article "New Life for the Marcy Scioption." Matt and other members of Terry Borton's Magic Lantern Performance group were discussing LED light sources at their virtual meetings – and Matt had built one that worked. I could figure this out – I was smarter than a (dim) lightbulb, or so I thought.

I re-read Matt's article and the others regarding lighting from past Bulletins and Gazettes. At the end of this article is a bibliography of Society articles regarding lighting. John Davidson's are particularly detailed. Some parts of articles are of course dated with recommendations of obsolete lamps and hardware, but there is a lot of good information.

I ordered a LED lamp, 12v dimmer, used rechargeable batteries that I had on hand, and give it a try.

I did a rough measurement of the lantern, with a lamp near the back, metal ruler and protractor, to estimate the beam angle to fill a 4 inch diameter condensing lens. The result was about 20 degrees each side of center, so a 40 degree beam spread. So I selected a lamp with 36 degree beam spread, not a narrow spotlight.

My criteria was for a bright (high lumens) lamp, 12 volt DC so that batteries can be used, dimmable, and as warm a color as I could find that was readily available and cheap enough that I would be willing to discard it, should it not work out.

Dimming capacity was important to me, I had found with the halogen lamp in a very dark room it could be too bright and wash-out the image, plus it was a useful show technique to be able to fade out a slide. The lamp I purchased claimed to be dimmable to 20%. I bought an inexpensive low-voltage dimmer sold for use with LED strip lights and hoped it would work. Note if you are dimming the line voltage side, the 120 volt side, there is an issue of dimmer compatibility. I found the SORRA lamp technical data sheets very helpful with transformer and dimmer compatibility, should you need it.

Initial Test Results

Following are the results of three illuminates used in a M.C. Lilley lantern of russian iron, 4 inch condensing lenses, and what the Lilley catalog describes as their "1/4 High Power" objective lens which is 1-5/8 inches diameter, producing an image 50% of the distance from screen, i.e. 8 foot diameter image at a distance of 16 feet lantern to screen.

The LED test set-up was quick and crude, a cardboard box to hold the lamp in the proper position, clip leads for electrical connections, and electric meter.

To measure the light reflected off the screen in lux, I used a free app installed on my iPhone. It claims to be accurate, but even if not, the results would at least be useful to compare the three illuminates. All meas-

urements were taken 3 feet from the screen.

For screens I used a 7 foot Da-lite projection screen and a white cotton sheet that I use with a reproduction screen stand. The screen was placed 16 feet from the lantern, producing the promised 8 foot diameter image.

Two slides were used for comparison: A wood mount, hand tinted Beale-type American revolutionary war image (3 inch diameter image) and 3-1/4 x 4 black-white photographic image.

Test 1: Moderately dim room, ambient light 3.1 to 3.5 lux measured 3 feet from the screen.

Illuminant Type	Illuminant Spec	Color CCT (K)	CRI	Candle-power Listed per catalog	Lumens Initial per catalog	Lux Screen Da-Lite Color Slide	Lux Screen Da-Lite B/W Photo Slide	Lux Screen Sheet Color Slide	Lux Screen Sheet B/W Photo Slide
3-wick kerosene	(3) 3 inch wide flat wicks	2,000 or less?	-	128	1,608 Calculated	No visible image	No visible image	No visible image	No visible image
Halogen reflector lamp	ELH 120v/300w MR16	3,350	100	-	525	48	64	50-53	55-60
LED reflector lamp	SORAA SM16-09-36D-87-H1 MR 16 12v/9w 36 degree beam angle	2,700	90	-	690	27-28	32-33	29-30	32-34

Test 2: Dark room, ambient light 0.3 lux measured 3 feet from the screen.

Illuminant Type	Illuminant Spec	Color CCT (K)	CRI	Candle-power Listed per catalog	Lumens Initial per catalog	Lux Screen Da-Lite Color Slide	Lux Screen Da-Lite B/W Photo Slide	Lux Screen - Sheet Color Slide	Lux Screen - Sheet B/W Photo Slide
3-wick kerosene	(3) 3 inch flat wicks	2,000 or less	-	128	1,608 Calculated	0.5	0.5 - 0.7	0.5	0.7
Halogen reflector lamp	ELH 120v/300w MR 16	3,350	100	-	525	27-29	34-39	26-28	34-38
LED reflector lamp	SORAA SM16-09-36D-87-H1 MR 16 12v/9w 36 degree beam angle	2,700	90	-	690	6.7-8.5	9-12	7-10	7.5-10

Observations and Notes

1. The LED produced lower results than the halogen lamp I have used for 20 years, however the LED was, under both light conditions, perfectly suitable for a public show in my opinion. Only under brighter ambient light conditions the brighter halogen light source would be needed.

The halogen lamp is used with a typical residential

110v AC slide dimmer which is useful to fade out and to adjust for ambient light conditions. At 100% the halogen lamp is too bright in most conditions and washes out the image. In a "dark" room I usually leave it at about 50%.

3. Lux measurements varied over the reflected image from light areas to dark, as indicated. It seemed hard to be precise but relative values should be useful to compare.

4. I was surprised at the very minor differences between the Da-lite screen and the cotton sheet – I had expected the Da-lite screen to be much more reflective. The sheet I use is very thin, but was hung over the Da-lite screen. If hung on a dark wall, or with ambient light behind it, the results for the sheet might differ substantially.

5. The PAR 36 LED was selected based on crude hand measurements using a metal rule and protractor on the lantern. In practice, the lamp worked well within the lantern housing filling the 4 inch condensing lens well without much wasted light.

6. LED lamp was used with a low voltage dimmer and worked well, dropping the light level down smoothy from full to zero. A small, but noticeable "buzz" or "whistle" was heard while passing through the lower dimming range. I do not think this was loud enough to be distracting to an audience.

7. For the LED test I used (8) AA 1.5 v rechargeable batteries in series for the 12v power source as I already had them on hand, however actual voltage ranged from 9.5 to 8.7 volts after (2) 15 minute tests. Whether this was due to battery inefficiency or voltage loss though wiring or dimmer switch, I do not know. Perhaps the LED would be brighter with a full 12v power source?

8. The halogen and LED lamps are both MR 16, but the halogen lamp has a GY5.3 bi-pin base. The LED lamp has a GU5.3 bi-pin base. I did not notice this discrepancy when ordering and while the bi-pin base appears almost the same, the halogen pins are flat blade and the LED round, so the LED lamp does not fit in the socket that I have for the halogen. This was resolved with a new lamp socket for the GU5.3 base for $1.95 plus tax and shipping.

9. Kerosene Illuminate: It had been nearly 20 years since I last fired up the kerosene burner. I had forgotten how quickly and how hot the entire lantern housing became. (3) 3 inch flames are nothing to be trifled with. I have a civil war re-enactor acquaintance who has from time to time implored me to present a show with the kerosene illuminate, for which I have always refused. This demonstration reinforced that decision due to the heat, odor, and unpredictability of live flame. I might consider a short demonstration for a limited, knowledgeable audience under the right conditions, but that is all. A show in a canvas civil war tent with one exit flap- never. I would want completely dark conditions, open ventilation, nothing combustible nearby, and multiple exits.

10. The halogen lamp set-up I made about 20 years ago included a piece of heat and UV resistant glass to protect the slides. I ordered what was supposed to be a high quality (at the time) glass though a theater lighting supply shop for what seemed a pricy sum twenty years ago, $ 60 plus tax and shipping for a 5 x 5 inch square. But I was pleased that after a minute or two under the high heat of the kerosene illuminate, the slides remained at ambient room temperature, so it must work.

Battery Sources and Run Time

One formula I found is run time = 10 x battery capacity in amp-hours / load in watts. Many small batteries are rated at milliamp-hours or mAh. The small nickel-metal hydride rechargeable (NiMH) batteries I had on hand are listed as 1,350 mAh. Divide by 1,000 and you have 1.35 Amp hours. The LED lamp is 9 watts, so 10 x 1.35/9 = 1.5 hours, even with these tiny AA cells. At least in theory.

Or another method, for the LED lamp used, 9 watts / 12 volts = 0.75 amps draw. The small nickel-metal hydride rechargeable (NiMH) batteries I had on hand are listed as 1,350 mAh. Divide by 1,000 and you have 1.25 Amp hours. 1.25 Amp hours divided by 1.33 amps for the lamp and you have 1.7 hours run time, calculated.

The batteries used in Matt's article were lithium-Ion with a larger capacity in a range of 2,500 mAh.

I quickly found on the web compact lithium-ion 12 volt rechargeable battery packs of 3,000 mAh to 6,000 mAH for $30-$40. Size 4 x 2.5 x 1 inch nominal – perfect to fit in my lantern. They are a nice rectangular shape, with on/off switch, power level indicator lights, 12 vdc power cord, and 110v charger. These should provide for 4 to 8 hours of run time. Or using the first formula, 10 x 6 amps /9 watts = 6.6 hours for the 6,000 mAh pack. For a public shows again that would be a perfect solution. The other

battery consideration besides voltage and amp-hours is the load. The battery pack I purchased has a listed 3 amp maximum load. Since the LED lamp is 1.33 amps, this is OK.

Battery Run Time – Test to Full Discharge

The 6,000 mAh battery was fully charged as indicated by its built in charging indicator lights. It was run continuously until deemed fully discharged. Each hour voltage and amperage readings were taken. Lux and footcandles readings were taken using an iPhone app, 3 feet back from a matt white paper screen noting the light reflected off the screen. Slide image was a hand-tinted revolutionary war scene. In addition to light readings, each hour a subjective opinion was noted if the image was bright enough for a show presentation. The room was moderately dark, similar to the dim room in Test 1 above.

Start: 12.3 vdc/0.74 amp draw. All five battery power indicator lights on. Image plenty bright for a show with ambient light levels similar to Test 1 above for the LED with AA batteries.

Voltage dropped and amperage increased as expected over run test, with light levels remaining constant and bright enough for show purposes though hour 6 with battery power indicator lights dropping from 5 to 3. Between hour six and seven battery was fully discharged and test ended with zero light output. I feel confident of a 6 hour continuous run time.

Cost

Low-voltage Dimmer was $ 13.42 plus tax with free shipping from Home Depot.

LED lamp was $ 15.80 plus tax plus $ 5.95 shipping from lampline.com. I was a bit disappointed that Lampline accepted my order and then the next day informed me the lamp was backordered and was expected in 4 weeks. But they did offer to cancel the order, did not charge me until it shipped, and it did ship in three weeks.

12 vdc/6,000 mAh Lithium-ion rechargeable battery pack with cords and charger: $34.59 plus tax with free shipping from TalentCell/Amazon. I realized later for just a few dollars more TalentCell offers the same battery pack with an additional 5vdc USB port so it could be used as a power source for other devices.

Socket (GU5.3) for LED Lamp: $ 1.95 plus tax plus $ 3.53 shipping from superbrightleds.com.

DC 5.5x2.1mm female socket with pigtail to connect to battery wiring harness: $ 0.49 plus tax plus @ 2.99 shipping from. Monoprice.com.

Total: Under $ 80 plus local sales tax.

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How Bright Were Magic Lantern Slides on a Screen? A Photomet ric Study of Limelight and Notes on its Use in the Magic Lantern
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Schnittker, Matthew

A new life for the Marcy Sciopti con
MLG vo l 33 no 1, page 13

Wells, W Willeroy

Illumination in Magic Lanterns
MLB vol 5 no 4, page 2

[Note this issue was originally mis-labeled Volume V, #3 – Date is December 1983]

Test photos 3/7/2022 - Dark room, ambient light 0.3 lux measured 3 feet from the screen.
Auto exposure on phone camera negates some of the differences, but this is some indication.

Kerosene illuminant from 16 feet

Halogen illuminant 50% from 16 feet

Halogen illuminant 100% from 16 feet

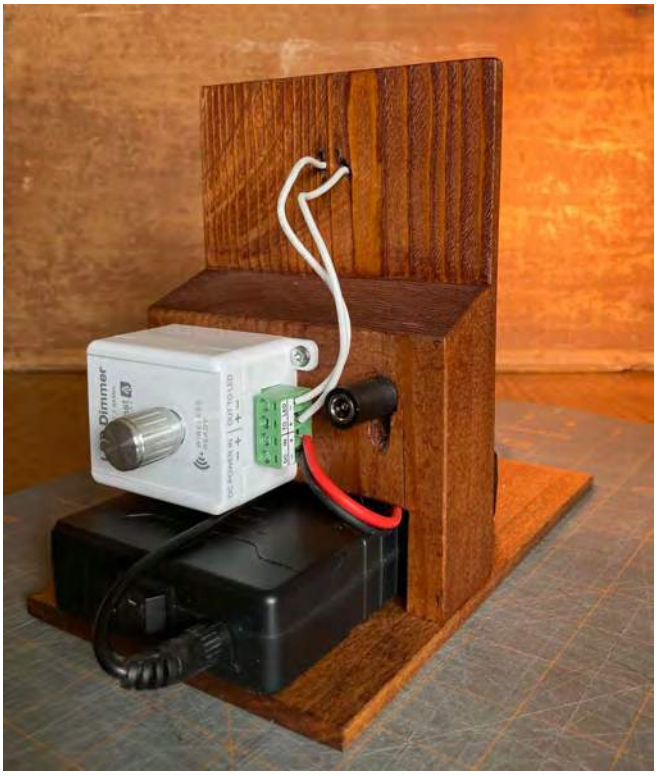
Kerosene illuminant closeup (out of focus)

LED illuminant from 16 feet

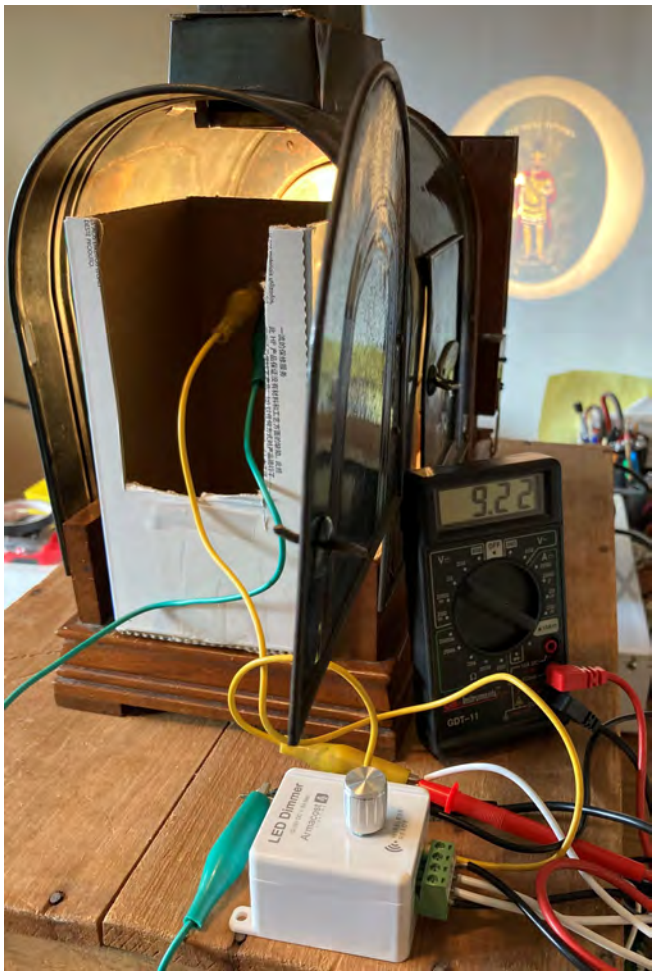
LED illuminant closeup

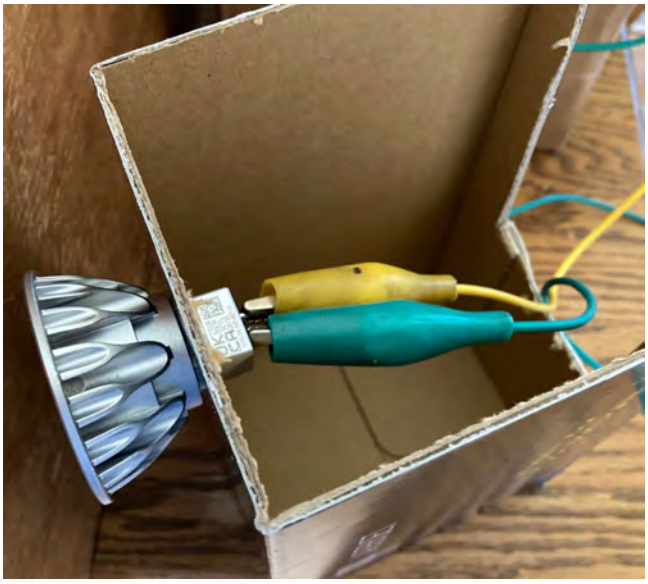
Halogen illuminant 50% closeup

The three-wick Kerosene lamp used in the experiments.



The LED lamp used, in its final build, and installed in the lantern - see below.





Several tests were conducted in setting up the LED lamp - see above and below left. The TalentCell battery (below) used to power the LED lamp fitted nicely inside the lantern body.

The Quartz Halogen lamp used in the experiments. Note the Heat/UV proof glass panel in front of the lamp.

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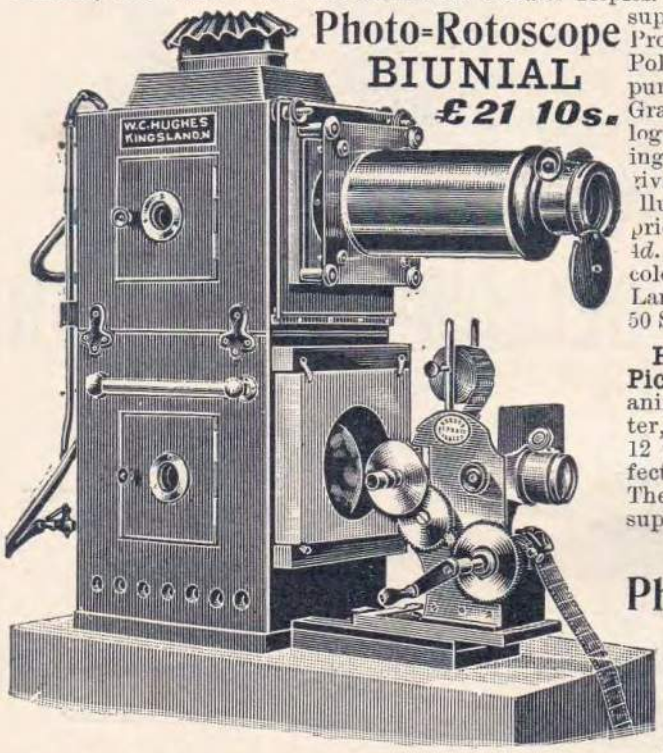

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Dear Friends and Fellow Magic Lantern Enthusiasts…

If at first you don't succeed…I'm delighted to invite you (again!) to the upcoming 19th Convention of the Magic Lantern Society of the US & Canada from October 18-20, 2022, here in Cleveland, OH. Cleveland has hosted two previous conventions, the first in 1984 and the second in 1998.

Note (as I'm certain you have) that this year's convention will take place mid-week, from Tuesday through Thursday. Why? Because virtually all hotels have already booked weekends for weddings and other major events that have been put off due to COVID concerns. 2022 Looks to be a VERY good year for the hospitality industry.

We'll be staying at the Glidden House, a wonderful boutique hotel in the heart of Cleveland's cultural center. Frankly, we've planned conservatively and have put aside twenty rooms for attendees. It would be a good idea to book one as soon as possible (we can always…hopefully…add rooms as needed but who knows?).

The link for rooms at the Glidden House is:

https://res.windsurfercrs.com/ibe/details.aspx?propertyid=9703&nights=1&checkin=10/18/2022&group=2210MAGICL&lang=en-us

or call Geneva at the Front Desk (216-658-4262) to make reservations or answer any questions or concerns.

The list of presentations is still in flux, but we will unquestionably have a (perhaps over-flowingly) full schedule of performances and presentations. At this moment (with more arriving every week) we've finalized the following (among numerous others): a Performers Workshop, the latest on Joseph Boggs Beale, The Rise & Fall of the Buckeye (OH) Stereopticon Co., ML music slides accompanied by hammer dulcimer, History of the Kaleidoscope, How Magic Lantern Slides Reflected and Promoted Racism, Digitizing ML slides, Temperance and Prohibition Through the Magic Lantern, and an open Magic Lantern Extravaganza at a local theater. Whew! And more to come.

Friends and family often accuse me of being a Cleveland booster (and I suspect they might be right). After having grown up in and around NYC, Susan and I moved to Cleveland in 1970 and have been amazed at what this "rust-belt" midwestern city has to offer. Part of the reason lies in the city's history: at the turn of the last century, Cleveland was the sixth largest city in the United State and an industrial and

commercial powerhouse. It was during that period that institutions such as the Cleveland Orchestra and the Cleveland Museum of Art were established. The city's Euclid Avenue was celebrated across the country as "Millionaires' Row."

Hard times came in the 1960's and 70's as the heavy industry that built the city and provided jobs for much of the population fled to sunnier (and less expensive) southern climes. Fortunately, things have been improving ever since. Anchored by its medical centers (The Cleveland Clinic and University Hospitals), educational institutions, and arts community (Playhouse Square is the largest performing arts complex in the US outside of NYC), Cleveland is often referred to as "the Comeback City" and offers great cultural destinations, terrific cuisine, a welcoming population, and so-so sports teams.

Cleveland has lots to offer. The convention committee, as always, is putting together an amazing program that should satisfy the most fervid collector/performer/scholar of magic lanterns and pre-cinema, but if you have the time and energy:

The Cleveland Museum of Art is walking distance from the Glidden House,
The Cleveland Historical Society and its Crawford Automobile and Aviation Museum has a magnificent collection of old cars and planes (also walkable),
The Cleveland Orchestra (always ranked among the top three in the US and often at Numero Uno), will be performing just down the street,
The Rock and Roll Hall of Fame is a not-to-be-missed attraction for those of us of a certain age (10-99),

and so much more. Susan and I will host a dinner at our home on Wednesday night with an opportunity to socialize, view my "modest" (as my British friends like to say) collection of 19th century pop-up and movable books, and graze. Should you decide to extend your stay either before or after the convention, please use us as a resource for places to visit, to eat, and to experience. We want to make your stay in our city as much fun as possible!

And now for the elephant in the room: we are fully aware of COVID-related issues, are sincerely hoping that no new mutations arise that will put the convention in jeopardy, but are looking forward to a "new normal" in which we can gather with very minimal risk. In the meanwhile, please get vaccinated, boostered, and take reasonable precautions. As the situation moves forward, we'll take whatever steps are necessary to ensure the safety of convention participants.

Looking forward to seeing you in October…

Larry and Susan Rakow

A Tale of Two Darlots

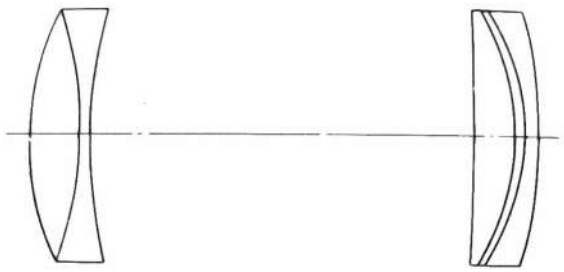
by Matt Schnittker

I'm a fan of the 19th century lenses made by Darlot. I have one on my tintype camera that I use to make 4x5 wet plate photographs and also one on my Marcy Sciopticon. Both are of the Petzval design have about a 1 5/8 inch front lens, 6 inch focal length and are around F 3.7. Although I've read in period literature that "objectives made for lantern work are not suitable for photography" (Hepworth, 1889), I have had success using lantern lenses on my cameras.

Although the lenses were identical, I noticed they did not perform identically. The Lens on the camera worked great, but the lens on the Marcy had an unusually high amount of "fall off" in the focus as I moved from the center to the edges. There often is some of this on Petzval lenses, but this was extreme. You can see in the picture below that the infant to the lower right is well out of focus.

I had never taken the time to dig into it, but had recently received an inquiry from a friend who was experiencing a similar problem. This inspired me to take a closer look. Removing the lenses, they both looked very close to identical. Lenses were tightly installed and the glass was clear and clean.

Petzval lenses like these use two pairs of lenses. This configuration was referred to as being "of two combinations". (Hepworth, 1889). If lenses were swapped, there are multiple combinations that could produce the wrong result. I was prepared to reference my Petzval diagram if things were needing attention.



Petzval Lens Design (Neblette, 1973)

I decided to take a deeper look and disassemble the lens from the Magic Lantern. Fortunately, upon disassembly, the problem revealed itself! The rear lens on the Marcy had not been installed properly.

You could even see where the retaining ring was loose.

I had to pull the lens apart and get the elements into their proper place and then things were right as rain!

This problem actually reminded me of a trick played by a 19th century lens maker - Dallmeyer. The Dallmeyer lenses had a "Soft Focus" feature where you could unscrew the lens in the back to "soften" the focus. I suppose this was a sort of built in Botox to make lines and wrinkles softer. The lens actually had hash marks on the back so the photographer could "dial In" the amount of softening wanted. The Dallmeyer was a much more expensive lens. While a Darlot lens of 6 inch focus might be around $20, a similar Dallmeyer was over $100. (Gatchel, 1888)

As the lenses we use in Magic Lantern projecting are often over 100 years old, it's no surprise to find one that has been played with. The trick is reminding myself to check each lens to make sure it is as it should be.

Sources

Photographic Lenses, C.B. Neblette, Morgan & Morgan Publishers, 1973

The Book Of The Lantern, T.C. Hepworth, Edward L Wilson, 1889

Illustrated Catalogue, W.D. Gatchell, Courier-Journal Job Printing Company, 1888.

EVERY PROJECTIONIST
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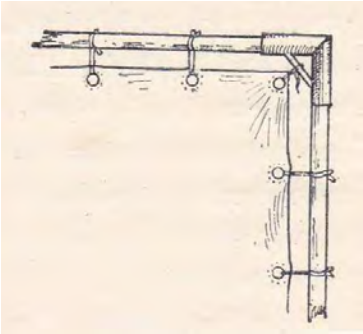
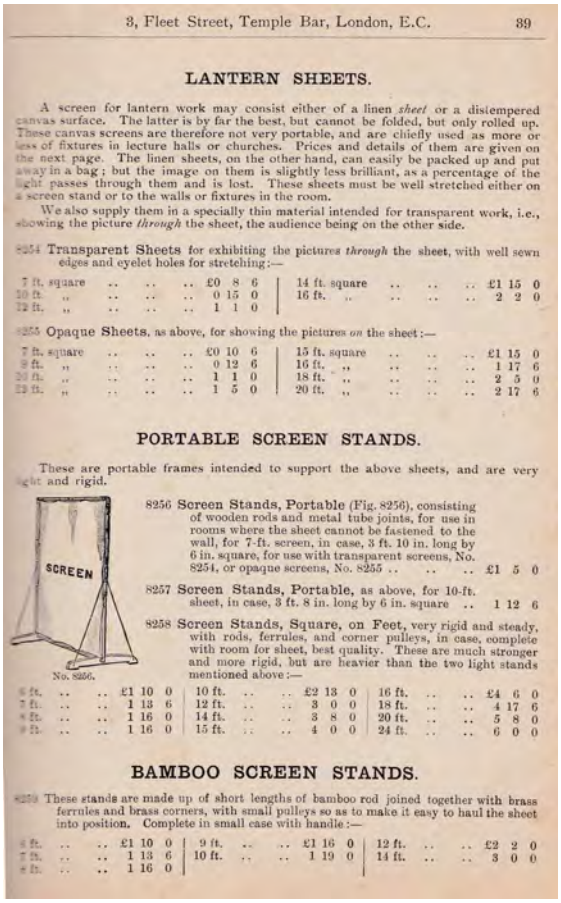
Riley Collection Update

In earlier days lanternists used a white fabric screen mounted in a sectional frame. The screen material was tensioned by ties or rope securing the screen to the frame. Eyelets or grommets were provided at intervals around the periphery of the screen material to facilitate this procedure.



How were the eyelets fitted to the material? As a lanternist one did not need to know that, as the screen was provided by the slide rental agency, or the lanternist purchased it from a suitable supplier such as Newton.



3, Fleet Street, Temple Bar, London, E.C. 39

LANTERN SHEETS.

A screen for lantern work may consist either of a linen *sheet* or a distempered canvas surface. The latter is by far the best, but cannot be folded, but only rolled up. These canvas screens are therefore not very portable, and are chiefly used as more or less of fixtures in lecture halls or churches. Prices and details of them are given on the next page. The linen sheets, on the other hand, can easily be packed up and put away in a bag; but the image on them is slightly less brilliant, as a percentage of the light passes through them and is lost. These sheets must be well stretched either on a screen stand or to the walls or fixtures in the room.

We also supply them in a specially thin material intended for transparent work, i.e., showing the picture *through* the sheet, the audience being on the other side.

8254 **Transparent Sheets** for exhibiting the pictures *through* the sheet, with well sewn edges and eyelet holes for stretching:—

7 ft. square	£0 8 6	14 ft. square	£1 15 0
10 ft. „	0 15 0	16 ft. „	2 2 0
12 ft. „	1 1 0		

8255 **Opaque Sheets**, as above, for showing the pictures *on* the sheet:—

7 ft. square	£0 10 6	15 ft. square	£1 15 0
9 ft. „	0 12 6	16 ft. „	1 17 6
10 ft. „	1 1 0	18 ft. „	2 5 0
12 ft. „	1 5 0	20 ft. „	2 17 6

PORTABLE SCREEN STANDS.

These are portable frames intended to support the above sheets, and are very light and rigid.

No. 8256.

8256 **Screen Stands, Portable** (Fig. 8256), consisting of wooden rods and metal tube joints, for use in rooms where the sheet cannot be fastened to the wall, for 7-ft. screen, in case, 3 ft. 10 in. long by 6 in. square, for use with transparent screens, No. 8254, or opaque screens, No. 8255 .. .. .. £1 5 0

8257 **Screen Stands, Portable,** as above, for 10-ft. sheet, in case, 3 ft. 8 in. long by 6 in. square .. 1 12 6

8258 **Screen Stands, Square, on Feet,** very rigid and steady, with rods, ferrules, and corner pulleys, in case, complete with room for sheet, best quality. These are much stronger and more rigid, but are heavier than the two light stands mentioned above:—

6 ft.	£1 10 0	10 ft.	£2 13 0	16 ft.	£4 6 0
7 ft.	1 13 6	12 ft.	3 0 0	18 ft.	4 17 6
8 ft.	1 16 0	14 ft.	3 8 0	20 ft.	5 8 0
9 ft.	1 16 0	15 ft.	4 0 0	24 ft.	6 0 0

BAMBOO SCREEN STANDS.

8259 These stands are made up of short lengths of bamboo rod joined together with brass ferrules and brass corners, with small pulleys so as to make it easy to haul the sheet into position. Complete in small case with handle:—

6 ft.	£1 10 0	9 ft.	£1 16 0	12 ft.	£2 2 0
7 ft.	1 13 6	10 ft.	1 19 0	14 ft.	3 0 0
8 ft.	1 16 0				

So how did a manufacturer such as H P Riley do it? With a special punch of course! Having first punched a series of ‘pilot holes’ in the material, the grommets were inserted, the smooth part from the front and the toothed part from

the back, and then offered up to the eyelet punch and its anvil. A suitable blow with a hammer and the job is complete! From the days when manpower was cheap… (See the image of a label on Page 7 bottom, sent to Riley's on a carton of one gross of grommets.)

Tips on Giving Magic Lantern Shows

by Terry Borton

Editor's Note: *This article continues a series of short Tips on how to improve your magic-lantern shows. Terry Borton's American Magic Lantern Theater (AMLT) has given more than a thousand shows over the last 25 years, from Podunk to Lincoln Center. He says he's also made a thousand mistakes, and hopes these Tips will help you make a few less.*

9. The Script

As the Victorian lanternist Quincy Welcrome wrote:

> Better never to have been born than to have the idea that "giving a magic lantern exhibition" consist merely in projecting an indefinite number of pictures upon the screen, one after the other, mechanically before your audience, be they ever so good.

Welcrome insisted that even if the individual pictures were good, the showman must work to transform the string of images into art. He focused particularly on the cinematic techniques of *continuity, variety,* and *rhythm*—how to make "the exhibition as one connected story, each part in harmony with the other, full of contrasts and beauty; a delight to all."

The key to doing that is the script.

(Having said that, I have to immediately interject that there are some modern lanternists who don't use a script. The late showman Mervyn Heard was a leading example. Such showmen know where they're going in general, and improvise from there. If you're good at this, you can create a wonderful show. But most of us aren't that talented. For us, it helps a lot to have a script.)

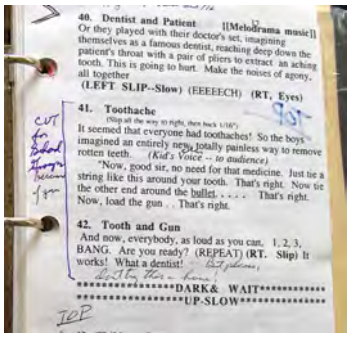
Building the Script: So how do you create "one connected story, each part in harmony with the other, full of contrasts and beauty; a delight to all"?

Most beginning lanternists start with either a small collection on one subject, or a miscellany. With one subject, the "connected story" is easy. Add some slip slides for "contrast and delight," a little punch at the end (usually a chromatrope) and you have a show. (The "contrasts" between almost any subject and slip slides is so sharp that I don't try to make much of a connection, though I do try to find slip slides that fit the general theme. This abrupt shift has a long tradition. Look at how Shakespeare handles his comedy.)

Building a miscellaneous collection of slides into a show takes more doing. Luckily, you have tradition on your side. A common format for traditional magic

lantern shows, especially the smaller ones, was the variety format, as shown here. Indeed, that variety was promoted as such - the broadside fairly shouts, "Look at all you're going to see." My first show was very much in this format. I had a travel section made up of really interesting Keystone slides, a story, some nature slides, and of course some slip slides. For each slide in the script I created a numbered **bold-faced title**; an indication of the music, if any, in brackets; and the script itself in 14 point type, to make it easy to read. (See picture.)

The trick in these miscellaneous variety shows is to get from one section to the next smoothly. That's essential even if you've built a longer show around one theme, like our Christmas Show. You need good segues.


40. Dentist and Patient [[Melodrama music]]
Or they played with their doctor's set, imagining themselves as a famous dentist, reaching deep down the patient's throat with a pair of pliers to extract an aching tooth. This is going to hurt. Make the noises of agony, all together
(LEFT SLIP--Slow) (EEEEECH) (RT. Eyes)

41. Toothache
(Slip all the way to right, then back 1/16").
It seemed that everyone had toothaches! So the boys imagined an entirely new totally painless way to remove rotten teeth. (Kid's Voice -- to audience)
"Now, good sir, no need for that medicine. Just tie a string like this around your tooth. That's right. Now tie the other end around the bullet. . . . That's right. Now, load the gun . . That's right.

42. Tooth and Gun
And now, everybody, as loud as you can. 1, 2, 3, BANG. Are you ready? (REPEAT) (RT. Slip) It works! What a dentist!
**********DARK& WAIT**********
**********UP-SLOW**********

The Segue: Society member Larry Rakow tells a wonderful segue story: A fifth grader was obsessed with dinosaurs, and used them as the subject for every school assignment. Finally, his teacher insisted that he write about something else - anything else. She suggested volcanoes, a sure-fire interest of fifth graders. The boy dutifully gave his presentation. "Many, many years ago, there were many big volcanoes. They were very large and exploded everywhere. Today volcanoes

are still here. Many years ago there were also large dinosaurs, but they are no longer here. I think that is very sad. The biggest dinosaur I like is . . ."

His segue was brilliant. (Note that he makes two connections, then interposes his own feelings as a bridge.) Your segue can be subtle like this boy's or more obvious: "Turning now to another subject . . ." Rather than simply jumping from one set of slides to another, I try to find a transition slide that I can show during the segue. (The boy might have shown a slide that featured both volcanoes and dinosaurs.) It's worth putting an effort into finding the right slide because good segues will help give that sense of a "connected" show.

As in the beginning show described above, the slip or mechanical slides can give the "contrasts" and "delights." I like to use several slip slides together, the best ones last in the series, since that draws the audience into the action. I sprinkle these comic episodes throughout the show.

You can simply demonstrate the slip slides, but I like to encourage involvement. "Here comes the jumping clown. Clap rhythmically for him. Make him jump." There's an art to doing this. Too much prodding and the audience will react mechanically and grudgingly, if at all. Encourage lightly as above, and lead the action by clapping yourself, picking up the beat with your voice. "Hup, hup, hup!" Then get your hands back to the slide to make it work. One of my great delights in performing is to see an audience that was sitting with arms folded at the start, laughing and clapping for those mechanical clowns at the end.

Revising the Script: Getting the right mix of elements, the right segues, the best comic lines, the best pacing—that all takes time. (Those late-night comedians you see on TV have a whole team of writers working around the clock to create their patter.) You're not likely to hit the mix right at the first crack. After every show I review what "worked" in the show, and what didn't, and revise accordingly. In the early years, these revisions were major—big cuts, big additions, big movements of material from one section to another. Now the revisions are usually more nuanced.

One of the things I look for is whether I left myself enough time in my script to physically manage the slides easily. If I didn't, I pad a bit. If things were dragging, I cut. If I have a new segue slide, I try out a new script line for it. I might try out a new segment or song. I review what the audience responded to and what they didn't. (For some performances I may plan to drop out a segment, as in the picture above, where I have reminded myself to cut a gun from a school show.) Every audience is different; each has something to teach you.

Even after 30 years of performing the same shows, I keep tinkering, trying to find ways to make them better. The shows do improve, bit by bit. I believe that. My script book surely shows the scars. And I rehearse. One or two run-throughs doesn't cut it, even if you've performed the show for years. I rehearse, and rehearse, and rehearse, until the script is all but memorized, in my lips, and in my fingers.

Rehearsal is what makes a performance look effortless.

Next Time: The Voice in the Dark

The Purposes of The Society shall be:

To establish an organization of people and entities interested in the collection, possession, conservation, restoration and maintenance of Magic Lanterns, Lantern Slides and related materials;

To encourage members to share their knowledge of Magic Lanterns, Lantern Slides and related materials with any interested persons or entities;

To coordinate research, catalogue material and disseminate information about the history, uses, development and preservation of Magic Lanterns and Lantern Slides; and

To promote exhibitions and/or shows utilizing Magic Lanterns, Lantern Slides and related equipment, in known methods of use in as historically accurate a manner as possible.

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Note: As a Society, MLS does not give valuations nor takes responsibility for advice or guidance, nor implies any form of guarantee for the accuracy or consequences arising from information so given.

The Magic Lantern Calendar – June 2022

Events

June 4-5, 2022, ***Nerdland Science Festival,*** workshop for children 6-12: create your own magic lantern and project your own stories, Provincial Domein Puyenbroeck, Puyenbrug 1a, 9185 Wachtebeke, Belgium.

June 24 & 25, 2022, ***Rouse Hill Psychadelia,*** experimental arts with colour, light, sound and projection using contemporary and retro technology, Rouse Hill Estate, 356 Annangrove Road, Rouse Hill, NSW 2155 Australia.

June 24-26, 2022, ***IDMAA Media Art Exhibition 2022: Weird Media,*** Winona State University, Winona Minnesota, http://idmaa.org/conferences/idmaa-2022-weird-media/exhibition-2022-weird-media/.

September 9-10, 2022, ***Magic Lantern Show,*** 19th century magic lantern show in a contemporary interpretation, Australian Centre for the Moving Image, Fed Square, Melbourne, Australia.

October 18-20 2022, ***Forty Years of the Magic Lantern Society – Looking Back and Looking Forward!*** The 19th convention of the Magic Lantern Society of the US and Canada, Glidden House, Cleveland OH. Contact briandrogers@gmail.com if you are interested in presenting. Registration opens soon.

through October 2023, ***Gary Fabian Miller: The Light Gatherers,*** lecture series at the Bodleian Libraries, will include influences of Magic Lantern projectionists. Information at https://visit.bodleian.ox.ac.uk/event/garry-fabian-miller-the-light-gatherers

Exhibits

Through July 10, 2022, ***City of Cinema: Paris 1850-1907,*** brings together various media including magic lanterns that culminated in cinema as a mass media. Resnick Pavilion, Los Angeles County Museum of art, 5905 Wilshire Blvd., Los Angeles, CA.

Through December 2026, ***The Story of the Moving Image,*** Australian Center for the Moving Image, Melbourne Australia. From magic lanterns to the latest in interactive technology.

Ongoing, ***The Story of the Moving Image,*** includes shadow puppets, Victorian-era magic lanterns, original cameras and more, Australian Centre for the Moving Image, Fed Square, Melbourne, Australia https://www.acmi.net.au/whats-on/story-of-the-moving-image-exhibition/.

Ongoing, ***The Path to Cinema: Highlights from the Richard Balzer Collection,*** Academy Museum of Motion Pictures, Los Angeles CA USA. 9,000 magic lantern objects collected by former MLS president Richard Balzer. https://www.academymuseum.org/en/exhibitions/path-to-cinema

Ongoing, ***From Shadows to Film…and all the magic in between!*** Kent Museum of the Moving Image, Stanhope Road, Deal, Kent CT14 6AD UK https://www.kentmomi.org/

Ongoing, ***Peter Bonnet magic lantern collection,*** Museum Stedhus Sleat, Heerenwal 48, 8556 XS Sloten, the Netherlands

Ongoing, ***Packaged Black,*** "Rotating Lantern", Henry Art Gallery, Seattle, WA.

Online

Magic Lantern Performing Group, Improve your skills every other Thursday on Zoom. Contact Terry Borton: tborton@magiclanternshows.com

De Luikerwaal Dutch Virtual Museum, https://www.luikerwaal.com/. Magic lantern history, pictures, stories.

Lucerna – the Magic Lantern Web Resource, online database collaboration covering all aspects of magic lanterns. http://lucerna.exeter.ac.uk/

The Museum of American Magic Lantern Shows, 5-minute intro, 10-minute Highlights Tour, 30-minute In-Depth Tour and Kids' Page. www.magiclanternmuseum.com

Life Through the Lens, online exhibit by the Royal Albert Memorial Museum & Art Gallery, https://artsandculture.google.com/story/life-through-the-lens/eAJSnVyn4BS2Jw

Starry nights: astronomy in the popular imagination, online exhibit through the Science Museum Group collection explores the ways astronomical discoveries and spectacles have thrilled and inspired us. https://artsandculture.google.com/exhibit/starry-nights-astronomy-in-the-popular-imagination/jgIi46ysvZNWJw

In focus: the development of photography, film, and television, online exhibit from the Deutsches Museum from the magic lantern to cell-phone photos. https://artsandculture.google.com/exhibit/in-focus-the-development-of-photography-film-and-television/LQKiqVxr8yRwJA

Photo-Drama of Creation Museum, 3D Virtual Museum & Theater, live performances for groups through an innovative videoconferencing system, https://pdocmuseum.org

To add your magic lantern show, exhibition, or other event to our calendar, or to list your show for potential bookings, drop a line to briandrogers@gmail.com.

Classified Advertisements

Wants

WANTED

English collector looking for figurines depicting itinerant lanternists and peepshowmen – examples shown here.

If you have any such pieces that you would like to sell please contact Mike Smith – kime1944@gmail.com

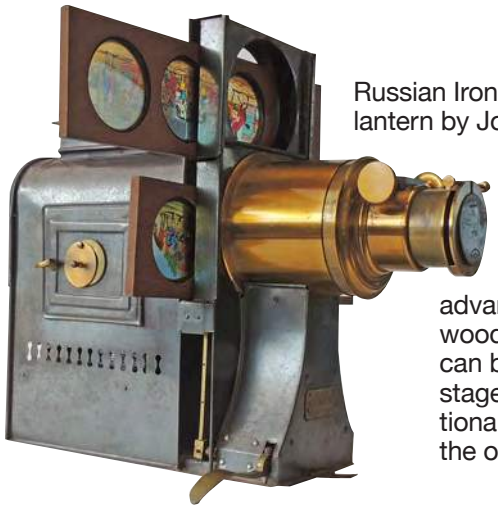
WANTED

A pair of 8" focal length projection lenses in 63mm diameter plain tubes. Also a pair of projection lenses engraved 8 IN EQUI also in 63 mm tubes (I have focussing sleeves for these) or a single similar lens in 2 1/16" (52mm) tube.

A conical Ernst Plank chimney with a brass flared bell top, 2 1/2" across the bottom.

Contact Lindsay Lambert - m.lindsaylambert@gmail.com

Sales



Russian Iron Metamorphoser lantern by John Wrench & Son, London. The design was introduced by W C Hughes in 1888. The advantage is that a wood mounted slide can be placed in one stage and a conventional slide carrier in the other, so that the types of slides can be mixed during the presentation. It comes with an electric lamp holder. Circa 1890.

Price $350.
Contact David Evans,
secretary-treasurer@magiclanternsociety.org

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